SPECIFICATIONS

Power Consumption Max. 20mA Accuracy ± 1 cent Master Oscillator Quartz (3. 579545MHz) Standard Pitch 440 to 445Hz 1Hz step

Jacks Input, Output, AC Adaptor

5-7/16 x 1-3/8 x 2-1/16 in

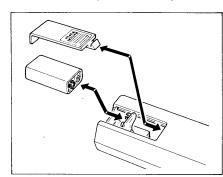
Weight 170 g/6 oz * Specifications are subject to change without notice.

'89-4-A4-11Y



Battery Replacement (9V x 1)

If the indicator under ${\bf B}$ starts flashing during operation, proper tuning function is no longer available. Please replace the battery with a new one.



How to replace the battery

- 1 Remove the lid of the Battery Housing.
- 2 Take out the battery and separate it from the Battery Connector.
- 3 Place a new battery. (Be sure that the polarity is correct.)
- 4 Close the lid securely

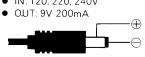
Important

• If the TU-12 is not to be used for a long time, remove the battery to prevent the trouble caused by battery leakage.

AC Adaptor

For AC operation, be sure to use the BOSS AC Adaptor PSA-120, 220 or 240 depending on the voltage system in your country, and never use one Adaptor for two units simultaneous-





Note

- If the B indicator starts flashing while the TU-12 is being operated with the AC Adaptor, tuning is not possible. If this happens, turn the TU-12 off, then turn it on again.
- When an amplifier is connected to the TU-12, set the POWER switch of the TU-12 to OFF immediately after tuning is completed to avoid unnecessory consumption of the battery. Moreover, increasing the volume of the amplifier with the TU-12 on may cause noise.



INSTRUCTION MANUAL

CHROMATIC TUNER TU-12 Digital Processing

RADIO AND TELEVISION INTERFERENCE

"Warning — This equipment has been verified to comply with the limits for a Class B computing device, pursuant to Subpart J, of Part 15, of FCC rules. Operation with non-certified or non-verified equipment is likely to result in interference to radio and TV reception."

ment is likely to result in interference to radio and TV reception."

The equipment described in this manual generates and uses radio-frequency energy. If it is not installed and used properly, that is, in strict accordance with our instructions, it may cause interference with radio and television reception.

This equipment has been tested and found to comply with the limits for a Class B computing device in accordance with the specifications in Subpart J, of Part 15, of FCC Rules. These rules are designed to provide reasonable protection against such a interference in a residential installation. However, there is no guarantee that the interference will not occur in a particular installation. However, there is no guarantee that the interference will not occur in a particular installation. However, there is no guarantee that the interference will not occur in a particular installation. However, there is no guarantee that the interference will not occur in a particular installation. However, there is no guarantee that the interference by the following measure:

• Disconnect other devices and their input/output cables one at a time. If the interference scops, it is caused by either the other device or its I/O cable.

These devices usually require Roland designated shielded I/O cables. For Roland devices, you can obtain the proper shielded cable from your dealer. For non Roland devices, contact the manufacturer or dealer for assistance.

If your equipment does cause interference to radio or television reception, you can try to correct the interference by using one or more of the following measures:

• Turn the TV or radio antenna until the interference stops.

• Move the equipment farther away from the TV or radio.

• Plug the equipment into an outlet that is on a different circuit than the TV or radio. (That is, make certain the equipment and the radio or television set are on circuits controlled by different circuit breakers or fuses.)

- Consider installing a rooftop television antenna with coaxial cable lead-in between the antenna and TV.

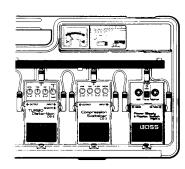
TV.

If necessary, you should consult your dealer or an experienced radio/television technician for additional suggestions. You may find helpful the following booklet prepared by the Federal Communications Commission:

"How to Identify and Resolve Radio-TV Interference Problems"

This booklet is available from the U.S. Government Printing Office, Washington, D.C., 20402, Stock No. 004-000-00345-4.

Storing the TU-12 in the Carrying Case BCB-6.



Bescheinigung des Herstellers /Importeurs

Hiermit wird bescheinigt, daß der/die/das CHROMATIC TUNER TU-12

Amtsbl. Vfg 1046 / 1984

funk-entstört ist.

Der Deutschen Bundespost wurde das Inverkehrbringen dieses Gerätes angezeigt und die Berechtigung zur Überprüfung der Serie auf Einhaltung der Bestimmungen eingeräumt.

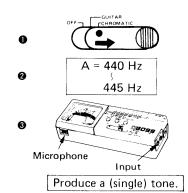
Roland Corporation Osaka / Japan

This digital apparatus does not exceed the Class limits for radio noise emissions set out in the Rad Interference Regulations of the Canadian Departme of Communications.

- For Canada

CLASSE B AVIS
Cet appareil numérique ne dépasse pas les limits
la classe B au niveau des émissions de bruits
électriques fixés dans le Réglement des signaux
sites par le ministère canadien des Communication

OPERATION [1] Chromatic Tuning



Set the MODE SELECT/POWER Switch to CHROMATIC.

Select the pitch. The TU-12 has the preset pitch, A=440Hz. (Refer to "Selecting of Pitch")

- a) If tuning the acoustic instrument, put it close to the Microphone.
- b) If tuning the electronic/electric instrument, connect it to the Input Jack by using a connecting cord.

The indicator nearest to that tone will flash.

<How to check a tone with the Indicators>



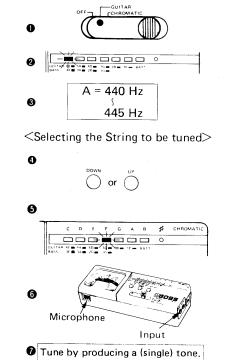
Now start tuning.

(Example 1) If the Indicator under "E" lights as shown in the figure, it means the tone produced is near "E"

(Example 2) If the Indicators under "G" and "#" light simultaneously, it means the tone near "G#" is pro-

Tune it referring to <How to check a tone with Meter and Tuning Guide> mentioned

OPERATION [2] Tuning Guitars or Bass Guitars



Set the MODE SELECT/POWER Switch to **GUITAR.**

For guitars, the indicator of 6E (for the 6th string) will light. For bass guitars, the indicator of 4E (for the 4th string) will light.

The symbols (i.e. 6E, 5A, 4D etc.) under the Indicators show the number of the string and its pitch.

Select the pitch. The TU-12 has the preset pitch, A=440Hz. (Refer to "Selecting of

Select the number of the string to be tuned by pressing the **UP** (or **DOWN**) button. (Example)

In case of the figure on the left, you can tune the ${\bf 3rd}\ {\bf string}\ {\bf of}\ {\bf a}\ {\bf guitar}\ {\bf and}\ {\bf the}\ {\bf 1st}\ {\bf of}$ bass guitar.

- a) If tuning the acoustic guitar, put its sound hole close to the Microphone.
- b) If tuning the electric guitar, connect it to the Input Jack by using a connecting cord.

Tune it by producing a (single) tone. For tuning method, please refer to <**How to** check a tone with Meter and Tuning Guide> mentioned later.

Selecting of Pitch

0



While you hold the Pitch button down, the Indicator will blink show ing that the preset pitch is A=440Hz.



Select the desired pitch by pressing the **UP** (or **DOWN**) button while the Pitch button is held down. The blinking of the Indicator will case when you release the Pitch button. However, the selected pitch will remain until the POWER Switch is turned

1. Chromatic Mode

When a tone is produced, the Indicator shows the name of the tone $(\mathbf{C} \sim \mathbf{B})$ and the Meter shows its pitch at the same time

(Example 1) Pitch A=440Hz





(Example 2) Pitch A≈443Hz



just tuned









higher

2. GUITAR Mode

How to check a tone with Meter and Tuning Guide

Before tuning your guitar with this unit, tune it roughly by checking tension of the strings etc

(Example 1) Pitch A=440Hz









higher than quater tone (50 cent)

(Example 2) Pitch A=443Hz



Connecting Chart

